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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/642,687	08/19/2003	Bernd Stahl	Q76860	2727	
23373 SUGHRUE M	7590 10/05/2007 ION, PLLC		EXAMINER		
2100 PENNSY	LVANIA AVENUE, N.W	' .	KASRAIAN, ALLAHYAR		
SUITE 800 WASHINGTON, DC 20037			ART UNIT	PAPER NUMBER	
			2619	* ***	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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·	Application No.	Applic	cant(s)				
	10/642,687	STAH	L ET AL.				
Office Action Summary	Examiner	Art Ur	it .				
	Allahyar Kasraian	2616			_		
The MAILING DATE of this communication app Period for Reply	ears on the cover si	neet with the correspo	ndence addı	ress			
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COM 36(a). In no event, however vill apply and will expire SIX , cause the application to be	MUNICATION. , may a reply be timely filed (6) MONTHS from the mailin come ABANDONED (35 U.S	g date of this com				
Status ·	·						
1) ⊠ Responsive to communication(s) filed on <u>19 Au</u> 2a) ☐ This action is FINAL . 2b) ⊠ This	ugust 2003. action is non-final.	·					
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closed in accordance with the practice under E							
Disposition of Claims							
4)⊠ Claim(s) <u>1-11</u> is/are pending in the application.				•			
	4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.				·			
6) Claim(s) <u>1-11</u> is/are rejected.							
7) Claim(s) is/are objected to.		•	•				
8) Claim(s) are subject to restriction and/o	r election requireme	ent.					
Application Papers							
9) The specification is objected to by the Examine	er.				•		
10)⊠ The drawing(s) filed on 19 August 2003 is/are:				•			
Applicant may not request that any objection to the							
Replacement drawing sheet(s) including the correct				•			
11) The oath or declaration is objected to by the Ex	kaminer. Note the a	mached Office Action	OFIGHT	J-132.			
Priority under 35 U.S.C. § 119							
12)⊠ Acknowledgment is made of a claim for foreign a)⊠ All b)□ Some * c)□ None of:	priority under 35 U	.S.C. § 119(a)-(d) or	(f) .	,			
1. Certified copies of the priority document	s have been receiv	ed.					
2. Certified copies of the priority document			•				
3. Copies of the certified copies of the prio application from the International Burea			is National S	Stage .			
* See the attached detailed Office action for a list				•			
Attackmont(s)							
Attachment(s) 1) Notice of References Cited (PTO-892)		terview Summary (PTO-4					
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO/SB/08)		aper No(s)/Mail Date otice of Informal Patent A					
Paper No(s)/Mail Date <u>08/19/2003</u> .		ther:	·		_		
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DETAILED ACTION

Priority

Acknowledgment is made of applicant's claim for foreign priority under 35
 U.S.C. 119(a)-(d).

Information Disclosure Statement

2. The information disclosure statement submitted on Aug. 19, 2003 has been considered by the Examiner and made of record in the application file.

Preliminary Amendment

The present Office Action is based upon the original patent application filed on Aug.
19, 2003 as modified by the preliminary amendment filed on Aug. 19, 2007. Claims
1-11 are now pending in the present application.

Drawings

4. **Figure 1** should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the

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examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

- 6. Claim 7 is objected to because of the following informalities:
 - a. On **line 2** of **claim 7**, replace "pyload" with --payload-- after "a";

 Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 2, 4, 6-11 rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be

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clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device. The claim(s) must be in one sentence form only.

Claims 2 and 4 are vague and indefinite since they recite "online configuration table" which is not defined and described properly to disclose what it means and how leverks.

is and hours.

Claims 6 and 7 are vague and indefinite since they recite "Interworking

protocol" which is not part of limitation for a method, apparatus, system, etc.

Claims 8-11 are vague and indefinite since they recite "Signaling transfer point (STP)" which is not part of limitation for a method, apparatus, system, etc.

Moreover, it should clarify the difference between "one processor" and "one processing software" since every processor processes software in general.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10 Claim1-5 and 9-11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

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Consider **claims 1-5**, the claimed subject matter is a non-statutory since they claim a computer program.

Claims 9-11 are rejected due to their dependency to rejected claim 1, 3 and 5.

Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions.

For purpose of applying prior art, examiner interprets computer program as a "computer readable medium encoded with a computer program" for claims 1-5.

Claim Rejections - 35 USC § 103

- 11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the Examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the Examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the difference's between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 1, 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over YI (US Patent # 7197129 B2) in view of Bedingfield et al. (US Patent # 6714639 B1) (hereafter Bedingfield) further in view of Lehtinen (US Patent # 6744870 B1).

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Consider **claim 1**, YI disclose a method that could be stored in computer-readable medium encoded with a computer program for escaping a signaling transfer point (STP) signaling connection control part (SCCP) and for identifying a single application service request, comprising the steps of:

mapping an incoming global title (GT) of an incoming SS7 message to an internal subsystem number (SSN) of a local user (FIG. 3 and lines 21-29 of col. 2, "In order to perform the routing by global title... The GTT is used to map a global title including signaling message into a SSN and a signaling point code recognizable by MTP 9. GTT is performed in the SCCP").

However YI fails to disclose mapping the internal SSN to a set of application service requests.

In the same field of endeavor, Bedingfield disclose mapping the internal SSN to a set of application service requests. (FIG. 1 and lines 60-67 of col. 1 and 1-7 of col. 2, "exemplary service routing are illustrated as service routing 1-4 in FIG. 1.

Using the DPC and SSN, a service can be issued over the telephone network to provide the service.")

Therefore, it would have been obvious to a person of ordinary skills in the art at the time the invention was made to incorporate mapping SSN to set of application service routing as taught by Bedingfield to GTT of SCCP signaling message disclosed by YI for purpose of assigning services to the SCCP signaling message. The proper motivation is to use a prepared task list assignment when receiving a signaling message.

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However, YI as modified by Bedingfield fail to disclose identifying a single application service request using transaction capabilities application part (TCAP) filter mechanism.

In the same field of endeavor, Lehtinnen disclose identifying a single application service request using transaction capabilities application part (TCAP) filter mechanism (lines 17-36 of col. 6, "When an initiation request for a service dialog--which arrives as a TC_BEGIN primitive (containing an Initial_DP message)-- is received on a network element, a new instance of the receiving program SRP is created that will search the correct distributor program block, create an instance thereof for the use of said service request, and transmit a TCAP message to said instance").

Therefore, it would have been obvious to a person of ordinary skills in the art at the time the invention was made to incorporate the application service requests and identifying them by TCAP as taught by Lehtinnen to subsystem number as disclosed by YI as modified by Bedingfield for purpose of applying different services into signaling network. The proper motivation is to use a request service in a signaling network system.

Consider claim 2 as applied to claim 1 above, YI disclose mapping is performed using online configurable tables (lines 12-17 of col. 5, "The pre-fetch GTT module 110 and the post-fetch GTT module 130 respectively have a pre-fetch GTT database and a post-fetch GTT database to provide independence from each other.

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The pre-fetch GTT database and the post-fetch GTT database each have the same structure, as shown in Table 1" the pre-fetch and post-fetch GTT database is considered as configurable table).

Consider claim 9 as applied to claim 1 above, Lehtinen disclose Signaling transfer point (STP) for routing SS7 links comprising at least one processor and at least one processing software to process incoming SS7 messages, to identify a single application service request in the incoming SS7 message, and to provide the identified single application service request to a signaling application server (SAS) for further processing (FIG. 3 for service control function SCF -considered as SASwhere it gets SS7 messages from service switching point SSP, lines 42-46 and 51-55 of col. 5, to identify a single application service, lines 17-36 of col. 6; the processor is inherently taught by the reference since every network point has at least one processor to process the software related to network protocol).

YI also discloses wherein the at least one processing software includes a SCCP Local User Escape process to identify a single application service request out of a signaling connection control part (SCCP). (FIG. 3 for a SCCP signaling message lines 60-65 of col. 1).

13. Claims 3, 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bedingfield et al. (US Patent # 6714639 B1) (hereafter Bedingfield) in view of Lehtinen (US Patent # 6744870 B1).

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Consider claim 3. Bedingfield disclose a method that could be stored in computer-readable medium encoded with a computer program for escaping a signaling transfer point (STP) signaling connection control part (SCCP) and for identifying a single application service, comprising the steps of:

routing an incoming SS7 message to an internal subsystem number (SSN) of a local user based on an incoming subsystem number (SSN), mapping the internal SSN to a set of application service requests (FIG. 1 and lines 60-67 of col. 1 and 1-7 of col. 2, "each service routing record contains a destination point code (DPC) and subsystem number (SSN)... The subsystem number identifies the particular application executed by the server to implement the service being provided. Exemplary service routing are illustrated as service routing 1-4 in FIG. 1. Using the DPC and SSN, a service can be issued over the telephone network to provide the service.").

However, Bedingfield fail to disclose identifying a single application service request using transaction capabilities application part (TCAP) filter mechanism.

In the same field of endeavor, Lehtinnen disclose identifying a single application service request using transaction capabilities application part (TCAP) filter mechanism (lines 17-36 of col. 6, "When an initiation request for a service dialog--which arrives as a TC_BEGIN primitive (containing an Initial_DP message)-is received on a network element, a new instance of the receiving program SRP is created that will search the correct distributor program block, create an instance

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thereof for the use of said service request, and transmit a TCAP message to said instance").

Therefore, it would have been obvious to a person of ordinary skills in the art at the time the invention was made to incorporate the application service requests and identifying them by TCAP as taught by Lehtinnen to subsystem number as disclosed by Bedingfield for purpose of applying different services into signaling network. The proper motivation is to use a request service in a signaling network system.

Consider claim 4 as applied to claim 3 above, Bedingfield disclose mapping is performed using online configurable tables (FIG. 1, table 101 is considered as configurable table).

Consider **claim 10** as applied to claim 3 above, Lehtinen disclose Signaling transfer point (STP) for routing SS7 links comprising at least one processor and at least one processing software to process incoming SS7 messages, to identify a single application service request in the incoming SS7 message, and to provide the identified single application service request to a signaling application server (SAS) for further processing (FIG. 3 for service control function SCF –considered as SAS-where it gets SS7 messages from service switching point SSP, lines 42-46 and 51-55 of col. 5, to identify a single application service, lines 17-36 of col. 6; the

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processor is inherently taught by the reference since every network point has at least one processor to process the software related to network protocol)

YI also discloses wherein the at least one processing software includes a SCCP Local User Escape process to identify a single application service request out of a signaling connection control part (SCCP). (FIG. 1 for a SCCP signaling message lines 65-67 of col. 1 and lines 1-5 of col. 2).

14. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over YI (US Patent # 7197129 B2) in view of Bedingfield et al. (US Patent # 6714639 B1) (hereafter Bedingfield).

Consider **claim 5**, YI disclose a method that could be stored in computer-readable medium encoded with a computer program for escaping a signaling transfer point (STP) signaling connection control part (SCCP) and for identifying a single application service request, comprising the steps of:

mapping an incoming global title (GT) of an incoming SS7 message to an internal subsystem number (SSN) of a local user or routing an incoming SS7 message to an internal subsystem number (SSN) of a local user based on an incoming subsystem number (SSN), (FIG. 3 and lines 21-29 of col. 2, "In order to perform the routing by global title... The GTT is used to map a global title including signaling message into a SSN and a signaling point code recognizable by MTP 9. GTT is performed in the SCCP").

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In the same field of endeavor, Bedingfield disclose mapping the internal SSN

to a set of application service requests. (FIG. 1 and lines 60-67 of col. 1 and 1-7 of

col. 2, "exemplary service routing are illustrated as service routing 1-4 in FIG. 1.

Using the DPC and SSN, a service can be issued over the telephone netwrok to

provide the service.")

signaling message.

Therefore, it would have been obvious to a person of ordinary skills in the art at the time the invention was made to incorporate mapping SSN to set of application service routing as taught by Bedingfield to GTT of SCCP signaling message disclosed by YI for purpose of assigning services to the SCCP signaling message. The proper motivation is to use a prepared task list assignment when receiving a

15. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over YI (US Patent # 7197129 B2) in view of Bedingfield et al. (US Patent # 6714639 B1) (hereafter Bedingfield) further in view of Lehtinen (US Patent # 6744870 B1).

Consider claim 11 as applied to claim 5 above, YI as modified by Bedingfield disclose the at least one processing software includes a SCCP Local USR Escape process to identify a single application request out of a signaling connection part (SCCP). (FIG. 3 and lines 21-29 of col. 2 from YI and FIG. 1 and lines 60-67 of col. 1 and 1-7 of col. 2 from Bedingfield)

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However, YI as modified by Bedingfield fail to disclose Signaling transfer point (STP) for routing SS7 links comprising at least one processor and at least one processing software to process incoming SS7 messages, to identify a single application service request in the incoming SS7 message, and to provide the identified single application service request to a signaling application server (SAS) for further processing.

In the same field of endeavor, Lehtinen disclose Signaling transfer point (STP) for routing SS7 links comprising at least one processor and at least one processing software to process incoming SS7 messages, to identify a single application service request in the incoming SS7 message, and to provide the identified single application service request to a signaling application server (SAS) for further processing (FIG. 3 for service control function SCF—considered as SAS-where it gets SS7 messages from service switching point SSP, lines 42-46 and 51-55 of col. 5, to identify a single application service, lines 17-36 of col. 6; the processor is inherently taught by the reference since every network point has at least one processor to process the software related to network protocol)

Therefore, it would have been obvious to a person of ordinary skills in the art at the time the invention was made to incorporate the identifying application service requests from SS7 message as taught by Lehtinnen to subsystem number as disclosed by YI as modified by Bedingfield for purpose of applying different services into signaling network. The proper motivation is to use a request service in a signaling network system.

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16. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Sprague et al. (US Patent # 7050456 B1) (hereafter Sprague) in view of Segal (US

Patent Application Pub. # 2003/0041122 A1).

Consider **claim 6**, Sprague discloses Interworking protocol between a signaling transfer point (STP) for processing SS7 messages and a signaling application server (SAS) for processing application service requests, wherein the interworking protocol is TCP/IP or UDP/IP including at least one field to be processed in the SAS (FIG. 24 for SS7 message signal unit encapsulated in the data field of TCP/IP packet, as described in lines 24-54 of col. 16; FIG. 23 shows the message flow through STP 1510 when processing user part message sent to and received from SSP 1730 over TCP/IP network 1740 as indicated in lines 22-25 of col. 15; SSP service switching point is considered as SAS by definition).

However, Sprague fails to explicitly specify that the filed reserved to include a single application service request.

In the same field of endeavor Segal disclose the filed reserved to include a single application service request (FIG. 3 for service/application message and lines 1-9 of par. 0016).

Therefore, it would have been obvious to a person or ordinary skills in the art to combine the filed of application service for SS7 frame as taught by Segal to the data field of TCP/IP packet as shown by Sprague for purpose of transmitting and

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receiving SS7 application messages over different protocol. The proper motivation is to execute application query messages via an internet protocol transport (Segal lines 3-4 of par. 0001).

Consider claim 7 as applied to claim 6 above, Sprague disclose the interworking protocol includes a header and a payload, wherein the payload includes at least one SCCP message, and wherein the header includes at least one of the following parameters: address information of the sending unit in the STP, SCCP message type, internal application service id, GT translation indicator (FIG. 24 for SS7 MSU message type).

17. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lehtinen (US Patent # 6744870 B1) in view of YI (US Patent # 7197129 B2).

Consider claim 8, Lehtinen disclose Signaling transfer point (STP) for routing SS7 links comprising at least one processor and at least one processing software to process incoming SS7 messages, to identify a single application service request in the incoming SS7 message, and to provide the identified single application service request to a signaling application server (SAS) for further processing (FIG. 3 for service control function SCF -considered as SAS- where it gets SS7 messages from service switching point SSP, lines 42-46 and 51-55 of col. 5, to identify a single application service, lines 17-36 of col. 6; the processor is inherently taught by the

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reference since every network point has at least one processor to process the software related to network protocol).

However, Lehtinen fails to explicitly disclose the at least one processing software includes a SCCP Local User Escape process to identify a single application service request out of a signaling connection control part (SCCP).

In the same field of endeavor, YI discloses the at least one processing software includes a SCCP Local User Escape process to identify a single application service request out of a signaling connection control part (SCCP). (FIG. 3 for a SCCP signaling message lines 60-65 of col. 1).

Therefore it would have been obvious to a person of ordinary skills in the art at the time the invention was made to incorporate SCCP message as taught by YI to application service request identified as disclosed Lehtinen for purpose of processing signaling transmission. The proper motivation is to process messages contained in signaling connection control part.

Conclusion

- 18. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.
 - a. Malik (U.S. Patent # 6415027 B1) disclose Networks, systems and methods for intelligently routing traffic within a telephone network.
 - b. Krishnamurthy et al. (U.S. Patent # 6760343 B1) disclose Method and apparatus for providing a virtual SS7 link in a communications system.

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c. Zhang et al. (U.S. Patent # 7103644 B1) disclose system for an integrated data network voce-oriented service and non-voice-oriented service converged creation and execution environment.

19. Any response to this Office Action should be faxed to (571) 273-8300 or mailed to:

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window Randolph Building 401 Dulany Street Alexandria, VA 22314

20. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Allahyar Kasraian whose telephone number is (571) 270-1772. The Examiner can normally be reached on Monday-Thursday from 8:00 a.m. to 5:00 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 571-272-4100.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Allahyar Kasraian A.K.lak

September 24, 2007

KENNETH VANDERPUYE SUPERVISORY PATENT EXAMINER